

[4910-13]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Parts 61, 91, 135

[Docket No. FAA-2006-24981; Notice No. 06-14]

RIN 2120-AI82

Special Federal Aviation Regulation No. XX – Mitsubishi MU-2B Series Airplane

Special Training, Experience, and Operating Requirements

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA is proposing a Special Federal Aviation Regulation (SFAR) applicable to the Mitsubishi MU-2B series airplane that would create new pilot training, experience, and operating requirements. Following an increased accident and incident rate in the MU-2B series airplane, the FAA conducted a safety evaluation of the MU-2B series airplane and found that changes in the training and operating requirements for that airplane are needed. These proposed regulations would mandate additional operating requirements and improve pilot training for the MU-2B series airplane.

DATES: Send your comments on or before *[Insert date 30 days after date of publication in the Federal Register]*.

ADDRESSES: You may send comments to Docket Number FAA-2006-24981 using any of the following methods:

* will
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4:00pm
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- Department of Transportation (DOT) Docket web site: Go to <http://dms.dot.gov> and follow the instructions for sending your comments electronically.
- Government-wide rulemaking web site: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.
- Mail: Docket Management Facility; US Department of Transportation, 400 Seventh Street, S.W., Nassif Building, Room PL-401, Washington, DC 20590-0001.
- Fax: 1-202-493-2251.
- Hand Delivery: Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, S.W., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For more information on the rulemaking process, see the SUPPLEMENTARY INFORMATION section of this document.

Privacy: We will post all comments we receive, without change, to <http://dms.dot.gov>, including any personal information you provide. For more information, see the Privacy Act discussion in the SUPPLEMENTARY INFORMATION section of this document.

Docket: To read background documents or comments received, go to <http://dms.dot.gov>, at any time or to Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, S.W., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Pete Devaris, Federal Aviation Administration, General Aviation and Commercial Division AFS-820, Room 835,

800 Independence Avenue S.W., Washington, DC 20591; telephone (202) 493-4710; facsimile (202) 267-5094; or e-mail: *Peter.Devaris@faa.gov*.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites interested persons to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. We ask that you send us two copies of written comments.

We will file in the docket all comments we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. The docket is available for public inspection before and after the comment closing date. If you wish to review the docket in person, go to the address in the ADDRESSES section of this preamble between 9:00 a.m. and 5:00 p.m., Monday through Friday, except Federal holidays. You may also review the docket using the Internet at the web address in the ADDRESSES section.

Privacy Act: Using the search function of our docket web site, anyone can find and read the comments received into any of our dockets, including the name of the individual sending the comment (or signing the comment on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78) or you may visit <http://dms.dot.gov>.

Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed late if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

If you want the FAA to acknowledge receipt of your comments on this proposal, include with your comments a preaddressed, stamped postcard on which the docket number appears. We will stamp the date on the postcard and mail it to you.

Proprietary or Confidential Business Information

Do not file in the docket information that you consider to be proprietary or confidential business information. Send or deliver this information directly to the person identified in the FOR FURTHER INFORMATION CONTACT section of this document. You must mark the information that you consider proprietary or confidential. If you send the information on a disk or CD-ROM, mark the outside of the disk or CD-ROM and also identify electronically within the disk or CD-ROM the specific information that is proprietary or confidential.

Under 14 CFR 11.35(b), when we are aware of proprietary information filed with a comment, we do not place it in the docket. We hold it in a separate file to which the public does not have access, and place a note in the docket that we have received it. If we receive a request to examine or copy this information, we treat it as any other request under the Freedom of Information Act (5 U.S.C. 552). We process such a request under the DOT procedures found in 49 CFR part 7.

Availability of Rulemaking Documents

You can get an electronic copy using the Internet by:

- (1) Searching the Department of Transportation's electronic Docket Management System (DMS) web page (<http://dms.dot.gov/search>);
- (2) Visiting the FAA's Regulations and Policies web page at http://www.faa.gov/regulations_policies/; or
- (3) Accessing the Government Printing Office's web page at <http://www.gpoaccess.gov/fr/index.html>.

You can also get a copy by sending a request to the Federal Aviation Administration, Office of Rulemaking, ARM-1, 800 Independence Avenue S.W., Washington, DC 20591, or by calling (202) 267-9680. Make sure to identify the docket number, notice number, or amendment number of this rulemaking.

Authority for this Rulemaking

The Federal Aviation Administration's (FAA) authority to issue rules on aviation safety is found in Title 49 of the United States Code. Subtitle I, Section 106, describes the authority of the FAA Administrator to issue, rescind, and revise the rules. This rulemaking is promulgated under the authority described in Subtitle VII, Aviation Programs, Part A, Air Commerce and Safety, Subpart III, Safety, Section 44701, General Requirements. Under that section, the FAA is charged with prescribing regulations setting the minimum standards for practices, methods, and procedures necessary for safety in air commerce. This regulation is within the scope of that authority because it will set the minimum level of safety to operate the Mitsubishi MU-2B series airplane.

Background

History

In the 1950s, Mitsubishi Heavy Industries (MHI) developed the

MU-2B series airplane equipped with state-of-the-art turboprop engines. The MU-2B design provided a high-wing loading in cruise configuration, the capability of carrying nine passengers in a pressurized cabin, a highly efficient double-slotted Fowler flap system designed to run the full span of the wing to achieve short field takeoff and landing capability, and a spoiler system for roll control. MHI produced 764 MU-2B series airplanes with 397 airplanes on the U.S. registry as of August 2005.

The FAA type certificated the MU-2B airplane in November 1965; the type certification basis was Civil Aviation Regulation (CAR) 10, which required compliance with a combination of CAR 3 standards and special conditions. CAR 3 standards did not require a cockpit checklist for the MU-2B, nor was the airplane required to demonstrate the ability to complete the takeoff climb with one engine inoperable.

At first, the MU-2B was popular with corporate and business users. MHI eventually produced 13 different models with two basic categories of fuselage length: a short-body and a long-body design. Over the years, corporate and business aviation has switched to other more modern jet airplanes. As a result, the MU-2B is now used mainly in air taxi operations (especially cargo hauling) and as a personal-use airplane. Of the 397 of these airplanes on the U.S. registry, the majority are operated under the requirements of 14 CFR part 91 as personal-use airplanes. As of April 2006, 64 MU-2B's were being flown by 18 different part 135 operators within the United States.

This shift to air-taxi and personal-flight operations increased the exposure of the MU-2B to certain known hazards: more frequent night flights; a significantly higher number of hours flown than in previous operations; an increase in single-pilot operations;

and operation by pilots who may not be getting the level and frequency of training that corporate pilots typically receive. This shift in use may have resulted in an increase in the accident rate. Over a 2-year period from 2004-2005, the MU-2B series airplane has been involved in 12 accidents with a total of 14 fatalities.

Statement of the Problem

In response to the increasing number of accidents and incidents involving the MHI MU-2B series airplane, the FAA began a safety evaluation of the MU-2B in July 2005. The FAA, with the assistance of pilots and maintenance personnel both inside and outside the FAA, evaluated the design, operations, training, and maintenance of the MU-2B series airplane to determine if this airplane continues to meet the required certificated minimum level of safety and to determine what steps may be necessary to ensure their continued safe operation.

Performing the safety evaluation provided an in-depth review and analysis of MU-2B series airplane accidents, incidents, safety data, pilot training requirements, and engine reliability. The safety evaluation employed new analysis tools that provided a more detailed root cause analysis of the service history problems of the MU-2B than was previously possible.

During the safety evaluation, the FAA convened a FAA Flight Standardization Board (FSB) to evaluate proposed training, checking, and currency requirements for pilots operating the MU-2B series airplane. The FSB reviewed a proposed MHI training program, and MHI developed a standardized cockpit checklist. The FSB conducted a human factors evaluation to determine if average pilots, without exceptional skills, can perform various in-flight procedures during high workloads and if automation can reduce

pilot workloads and enhance safety. A copy of the Mitsubishi Model MU-2B Flight Standardization Board Report dated January 23, 2006, has been placed in the Rules Docket (FAA-2006-24981). Some of the proposed requirements in this SFAR are derived from the FSB report.

During the safety evaluation process, more than 20 MU-2B pilot training programs were evaluated, including 3 offered by commercial training providers. There was little standardization in how these programs addressed normal, abnormal, and emergency procedures. Only a few emphasized the different handling characteristics of the MU-2B airplane or specialized operational techniques. The FAA determined that it is essential that all flight training be conducted with a single standardized training program that reflects piloting procedures as found in the Airplane Flight Manual (AFM). A standardized flight training program that emphasizes proper operational technique is critical to the safe operation of the MU-2B.

The results of FAA's safety evaluation concluded that the MU-2B series airplane is a complex airplane requiring operational techniques not typically used in other light turboprop airplanes. Operationally, it is more similar to turbo-jet airplanes that require a type rating. A type rating is not required for a pilot-in-command (PIC) to operate the MU-2B series airplane because it is not turbo-jet powered and is not considered a large aircraft [see 14 CFR 61.31(a)]. The FAA could require a type rating by amending the type certification of the MU-2B. However, a type rating would not require annual or bi-annual recurrent training. The FAA determined that a type rating alone would not achieve the desired level of safety. Mandating training requirements that go beyond the

requirements of a type rating was determined to be necessary to ensure the safe operation of this airplane.

The Safety Evaluation Team and the FSB concluded that safe operation of the airplane requires initial and annual recurrent pilot training. This training must be standardized to be effective.

MHI developed a standardized flight training program. The FAA evaluated a draft of this training program during the FSB process. The FSB determined that use of the flight training program provided a significant increase in safety. MHI further refined the training program and submitted it to the FAA for approval. The FAA granted initial approval the MHI MU-2B Training Program (Part Number YET 05301) in July 2006. Mitsubishi Heavy Industries of America (MHIA) distributed Revision 1 of the training program for use by the operators of the MU-2B in August of 2006. Training also commenced in August, 2006. The FAA-approved MHI MU-2B Training Program (Part Number YET 05301) is considered to be compliant with the training requirements of this proposed SFAR and most of the recommendations of the FSB report. Credit will be given for training conducted prior to the effective date of the proposed SFAR only if that training is conducted in accordance the MHI MU-2B Training Program (Part Number YET 05301). A copy of this training program has been placed in the DOT docket for this rulemaking. The FAA will seek approval from the Director of the Federal Register to incorporate by reference the MHI MU-2B training program (Part Number YET 0530) in the SFAR.

This proposal allows certain training to be conducted in a flight training device (FTD) or the MU-2B airplane. Any FTD training, in order to meet the requirements of

this SFAR, must be conducted in a Level 5 or higher FTD that has been specifically approved by the FAA as an MU-2B training device. The FTD must be representative of an MU-2B cockpit and have flight characteristics similar to a MU-2B airplane.

The FAA reviewed the certification requirements for the MU-2B and found that it met the applicable certification basis. However, the airplane was type certificated before the requirement for a standardized cockpit checklist was in effect. Therefore, operators of the MU-2B have developed and use their own non-standard, non-FAA approved checklists. This lack of standardization generates a variety of operational procedures. During the safety evaluation the FAA received requests for a standardized checklist, developed by the manufacturer, found acceptable to the FAA, and reflective of the best operational procedures for this model airplane. The FAA's test pilots evaluated a standardized checklist developed by MHI, and after modification by the manufacturer, found it to be a significant safety improvement. A standardized cockpit checklist that emphasizes proper operational procedures is critical to the safe operation of the MU-2B series airplane.

MHI has developed a standardized checklist for the Mitsubishi MU-2B-60 model. This checklist has been accepted by the FAA's MU-2B Flight Standardization Board. MHI is in the process of developing checklists for the remaining models. All checklists are expected to be completed by December 31, 2006. A copy of the accepted Mitsubishi MU-2B-60 checklist has been placed in the Rules Docket. This checklist addresses the most complex model of the MU-2B airplane. The other checklists are expected to be similar in content where applicable. These checklists will be consistent with known configurations of the airplane as originally delivered or later modified and incorporated

by MHI into the AFM. Copies of the other checklists will be posted to the docket as they become available.

The FAA is proposing that all operators have onboard the airplane, accessible for each flight at the pilot station, a MHI MU-2B series airplane checklist accepted by the MU-2B Flight Standardization Board or other MU-2B series airplane checklist that has been accepted by the MU-2B Flight Standardization Board. This checklist must be used by the flight crewmembers when operating the airplane.

Federal aviation regulations allow operators to operate their aircraft in accordance with an approved AFM. Some aircraft are operating today with the original AFM. These same AFMs have been revised numerous times; however, some operators may not have revised their AFMs, nor elected to incorporate the later revisions from the manufacturer. Many of these revisions were prepared to enhance safe operation of the MU-2B and were a direct result of the Special Certification Reviews and icing studies conducted by the FAA in 1984 and 1997. The FAA is proposing that all operators have onboard the airplane, and accessible during each flight at the pilot station, a specific revision level of the AFM (see Table 1 in the SFAR). The proposed rule would allow the operator to have onboard the airplane, and accessible for each flight at the pilot station, FAA-approved revisions issued after the effective date of the SFAR. Copies of the AFMs have been placed in the DOT docket for review by the public. The FAA will seek approval from the Director of the Federal Register to incorporate by reference the MHI MU-2B Airplane Flight Manuals in the SFAR.

A pilot workload evaluation was conducted to determine if safety would be enhanced with the use of an autopilot during single-pilot instrument flight rules (IFR)

operations. Many of the recent accidents involved single pilot night-time IFR operations in high-density terminal areas with high pilot workloads. Using techniques developed by the National Aeronautics and Space Administration, testing showed a significant reduction in single pilot workload and stress and improved performance when an autopilot was used in actual flight conditions. In addition, the FAA has determined that use of an autopilot provides a level of safety comparable to a two-pilot crew and therefore does not propose requiring a second crew member. The FAA invites comment on whether there are advantages to requiring two crew members that exceed the safety benefits of requiring an autopilot.

The safety evaluation also looked at maintenance requirements for the MU-2B series airplane and recommended that all maintenance performed on the MU-2B must be done using current maintenance manuals and the latest instructions for continued airworthiness. Existing rules, 14 CFR 43.13 and 65.81, already address maintenance requirements and the need to use the current and correct manuals. Including this recommendation in the SFAR would result in redundant regulations. Therefore, the FAA is not proposing any new maintenance requirements in this SFAR. However, in November of 2005, the FAA issued Flight Standards Information Bulletin for Airworthiness 05-11 (FSAW), which focused on maintenance procedures. The FSAW required that all FAA maintenance inspectors with oversight of MU-2B operators inspect a variety of maintenance items and procedures and report their findings. This FSAW is still active but the actions required by it are near completion. The FAA has noted a high level of compliance with existing rules and no unsafe conditions have been identified.

The FAA continues to monitor the airworthiness of the MU-2B series airplane and will take appropriate action if an unsafe condition is identified.

The MU-2B Series Airplane Safety Evaluation Report of December 2005 recommended that the FAA begin a rulemaking action to address several of the recommendations within the report. Based on the safety evaluation recommendations, the FAA proposes an SFAR addressing the following items:

- Specific pilot training and testing of pilot skills.
- A standardized, user-friendly pilot checklist.
- A requirement to update the AFM.

A copy of the safety evaluation report has been placed in the Rules Docket (FAA-2006-24981) for this rulemaking.

The Proposed Regulation

Applicability.

The proposed SFAR would apply to all persons who operate the MU-2B airplane including those who manipulate the controls, or act as pilot-in-command (PIC). The proposed SFAR also applies to those persons who provide pilot training for the Mitsubishi MU-2B series airplane. The requirements proposed in this SFAR would be in addition to the requirements in 14 CFR parts 61, 91, and 135.

Compliance.

The FAA proposes that 180 days after the effective date of the final rule, no person may act as PIC, manipulate the controls, or provide pilot training on a Mitsubishi MU-2B series airplane unless that person meets the applicable requirements of the proposed SFAR. The FAA believes that 180 days should give the affected operators of

this airplane time to receive the necessary training and meet the requirements of the SFAR. While the FAA realizes that 180 days is a short period of time, the agency must balance the compliance timeframe with the need to act quickly to prevent further accidents.

Required Pilot Training.

The FAA proposes that no person may manipulate the controls or act as PIC of a Mitsubishi MU-2B series airplane for flight unless the applicable requirements for ground and flight training on initial/transition, requalification, recurrent, or differences pilot training specified in Mitsubishi Heavy Industries MU-2B Training Program (Part Number YET 05301, dated July 27, 2006, Revision 1, or a FAA-approved revision issued after the effective date of this SFAR) are completed and that person's logbook has been endorsed by a certificated flight instructor meeting the qualifications for MU-2B flight instructors listed in the SFAR.

As used in the proposed SFAR, initial/transition training would apply to any pilot without documented MU-2B pilot operating experience in the last 2 years. Requalification training would apply to any pilot who has documented MU-2B operating experience in the last 2 years, but does not have documented training to an FAA-approved training program for the MU-2B meeting the eligibility requirements of this SFAR for recurrent training. Recurrent training would apply to any pilot who has completed and has documented training to an FAA-approved training program for the MU-2B that meets the requirements of this SFAR in the preceding 12 months and is MU-2B current in accordance with this SFAR. Differences training would apply to any pilot who operates more than one MU-2B model. Differences training is in addition to

the requirements for initial/transition, requalification, or recurrent training. If for example, a person operates two models of the MU-2B, that person would be required to receive differences training between these models one time only. If a person intended to operate three or more models of the MU-2B, additional one-time difference training would be required.

The FAA proposes that no person may manipulate the controls or act as PIC of a Mitsubishi MU-2B series airplane for the purpose of flight unless that person completes annual recurrent pilot training in the *Special Emphasis Items*, pages 4 and 5, and all items listed in Training Course Final Phase Check, Appendix A, as specified in Mitsubishi Heavy Industries MU-2B Training Program (Part Number YET 05301, dated July 27, 2006, Revision 1, or a FAA-approved revision issued after the effective date of this SFAR). This includes training in the following areas of operation: takeoff and landing, steep turns and stalls, emergency operations (various scenarios with one engine not providing thrust), both precision approach and non-precision approach procedures for instrument rated pilots, and areas of special emphasis (stall awareness, minimum controllable airspeed awareness, icing conditions, and airspeed management). The pilot must satisfactorily complete the training and that pilot's logbook must be endorsed by a certificated flight instructor meeting the qualifications for flight instructors listed in the proposed SFAR.

The existing rule, 14 CFR 135.351(c), currently allows a 14 CFR 135.293 check be substituted for recurrent flight training. Because of the importance of recurrent training, the exception to recurrent training as described in 14 CFR 135.351(c) would not be allowed for the MU-2B airplane. Accordingly, the FAA has calculated the full

estimated cost associated with recurrent training in the initial regulatory evaluation for the proposed rule. The FAA notes that some of the recurrent training requirements could be incorporated into portions of the existing 135.293 check. Thus, the cost of recurrent training would be offset to some extent by a reduction in costs associated with the 135.293 check.

Satisfactory completion of a flight review to satisfy 14 CFR 61.56 is valid for operation of an MU-2B only if that flight review is conducted in an MU-2B series airplane. A flight review completed in the MU-2B series airplane satisfies the requirement for the flight review in 14 CFR 61.56 for all other aircraft except the Robinson R22/R44 [see SFAR 73, Section 2(c)].

Satisfactory completion of an FAA Wings Program, as described in 14 CFR 61.56(e) and Advisory Circular Number 61-91H, may not be substituted for the Mitsubishi MU-2B series airplane annual recurrent flight training. Depending on the type of training required, credit may be given for training performed in the airplane, flight training device, or simulator as described in the Mitsubishi MU-2B Training Program, Part Number YET 05301, Revision 1, dated July 27, 2006.

The FAA would require that all training conducted in the MU-2B series airplane be performed using the procedures and techniques as described in the applicable MHI Airplane Flight Manual, (see Table 1) and using a MHI MU-2B checklist accepted by the MU-2B Flight Standardization Board or other MU-2B series airplane checklist that has been accepted by the MU-2B Flight Standardization Board. The proposed rule would allow the use of FAA-approved AFM revisions issued after the effective date of the SFAR.

Aeronautical Experience.

The FAA Safety Evaluation Team and the FSB determined that the MU-2B is more complex than most light twin engine airplanes and other light turbine airplanes within its class. Safe operation of the MU-2B requires a high degree of pilot skill and discipline typically found in type-rated, transport category airplanes. The FAA determined that a minimum standard of pilot experience in multiengine airplanes would help to improve safety for the MU-2B. The FAA proposes that no person may act as PIC of a Mitsubishi MU-2B airplane for purposes of flight unless that person has logged a minimum of 100 flight hours of PIC time in multiengine airplanes.

Flight Instructors.

The FSB determined that strict adherence to the normal, abnormal, and emergency flight procedures are critical to the safe operation of the MU-2B. The MU-2B has many differences from comparable multiengine airplanes. Differences include the airplane design, with full span wing spoilers and high drag gear doors with lengthy cycle times. Analysis and review of common operating practices show that application of procedures for other multiengine airplanes can be detrimental when performed in the MU-2B. For example, many multiengine airplane curriculums teach a procedure for engine failure just after takeoff that requires the pilot to apply maximum power, retract the landing gear and flaps, identify and verify the failed engine, and then fix or feather the engine. However, if a pilot applies this technique to the MU-2B series airplane, it would be contrary to operational procedures developed by MHI. The resulting negative transfer of knowledge can impede performance during abnormal and emergency situations. Effective instruction in the MU-2B requires a thorough understanding of all

commonly taught multiengine procedures as well as the differences between them and those for the MU-2B. Understanding the differences between these techniques can only come from extensive operational experience in the MU-2B as well as other multiengine airplanes. The FAA proposes that no flight instructor may provide instruction or conduct a flight review in a Mitsubishi MU-2B series airplane unless that instructor meets the flight instructor experience and currency requirements of this SFAR before giving flight instruction in the Mitsubishi MU-2B series airplane. All flight instructors (Airplane) who provide flight training in the Mitsubishi MU-2B series airplane would be required to have a minimum total PIC time of 2000 flight hours, 800 hours PIC in multiengine airplanes, and 300 hours PIC time in the Mitsubishi MU-2B series airplane. Fifty flight hours of Mitsubishi MU-2B series airplane PIC experience must have been within the last 12 months. Flight instructors (Simulator or Flight Training Device) would be required to have a minimum total PIC time of 2,000 flight hours and 800 hours PIC in multiengine airplanes. For flight instructors (Simulator or Flight Training Device), 50 flight hours of Mitsubishi MU-2B series airplane PIC experience, or 50 hours providing simulator or flight training device instruction, must have been within the last 12 months.

The FAA proposes that for the purpose of flight checking, designated pilot examiners, training center evaluators, and check airmen must have completed the appropriate qualification in the Mitsubishi MU-2B series airplane in accordance with sections 3 and 6 of this SFAR. The FAA believes that an effective evaluation of an airman's skill can only be assessed by individuals with a high degree of knowledge of the latest techniques, training profiles, and procedures for the MU-2B.

The FAA proposes that designated pilot examiners and check airmen must have 100 hours PIC flight time in the Mitsubishi MU-2B series airplane and must maintain currency in accordance with section 6 of this SFAR. The FSB determined this to be a minimum acceptable experience level for individuals administering practical tests and other demonstrations of proficiency.

All training conducted in the Mitsubishi MU-2B series airplane must be done in accordance with the procedures and techniques as described in the Mitsubishi Heavy Industries MU-2B Training Program (Part Number YET 05301, dated July 27, 2006, Revision 1, or a FAA-approved revision issued after the effective date of this SFAR) and the Mitsubishi Heavy Industries FAA-approved Airplane Flight Manual.

The FAA proposes that all training conducted in the Mitsubishi MU-2B series airplane must be done using a MHI MU-2B checklist accepted by the MU-2B Flight Standardization Board or other MU-2B checklist that has been accepted by the MU-2B Flight Standardization Board, and identified in section 7, paragraph (c) of the operational requirements of the proposed SFAR.

Currency Requirements and Flight Review.

The complexity of the airplane and differences in operational procedures requires that recurrent training and testing be done only in the MU-2B. During the safety evaluation and FSB evaluation, the exclusiveness of the MU-2B for recurrent training and testing was examined. Through this process the FAA determined that all recurrent training, testing, and flight reviews must be conducted in the MU-2B. Therefore, the FAA is proposing the landing currency requirements of 14 CFR 61.57 must be maintained in the Mitsubishi MU-2B series airplane. Landings in any other multiengine

airplanes would not meet the landing currency requirements for the Mitsubishi MU-2B series airplane. Landings in either short- or long-body Mitsubishi MU-2B model airplanes may be credited toward landing currency in both MU-2B model groups.

The FAA has determined that instrument currency does not need to be maintained exclusively in the MU-2B. Therefore, instrument experience obtained in other category and class of airplanes may be used to satisfy the instrument currency requirements of 14 CFR 61.57.

Satisfactory completion of the flight review required by 14 CFR 61.56 would be valid for operation of an MU-2B series airplane only if that flight review is conducted in an MU-2B airplane. Satisfactory completion of a flight review in the MU-2B airplane satisfies the requirements of 14 CFR 61.56 for other airplanes.

Operating Requirements.

The safety evaluation team and the FSB conducted a pilot workload evaluation to determine if safety would be enhanced with the use of an autopilot during single-pilot IFR operations. Many of the recent accidents involved single pilot IFR operations in high-density terminal areas, with high workloads conducted at night. Using techniques developed by National Aeronautics and Space Administration, testing showed a significant reduction in single pilot workload and stress and improved performance when an autopilot, a standardized user-friendly pilot checklist, and revised AFM procedures were used in actual flight conditions.

The FAA proposes the following additional operational requirements:

1. No person may conduct single-pilot operations under IFR, or in IFR conditions, or night VFR conditions in the Mitsubishi MU-2B series airplane unless that airplane has a functioning autopilot.

2. No person may operate a Mitsubishi MU-2B series airplane unless a copy of a specific revision level of the AFM Mitsubishi Heavy Industries Airplane Flight Manual (AFM) listed in the SFAR is carried on board the airplane and accessible for each flight at the pilot station.. The proposed rule would allow the operator to have onboard the airplane, and accessible for each flight at the pilot station, a FAA-approved revisions issued after the effective date of the SFAR.

3. No person may operate a Mitsubishi MU-2B series airplane unless a MHI MU-2B checklist accepted by the MU-2B Flight Standardization Board, or other MU-2B series airplane checklist that has been accepted by the MU-2B Flight Standardization Board, is carried on board the airplane and the checklist is accessible during each flight at the pilot station. This checklist must be used by the flight crewmembers when operating the airplane.

Alternatives Considered

The FAA considered the following alternatives to the approach set forth in the proposed SFAR:

1. Take no action. The FAA discarded this alternative because it would not enhance safety. Among other things, the FAA proposes to enhance safety by creating new pilot training, experience, and operating requirements. Following an increased accident and incident rate in the MU-2B series airplane, the FAA conducted a safety

evaluation of the MU-2B series airplane and found that changes in the training and operating requirements for that airplane are needed.

2. Prohibit all operations of the MU-2B series airplane within the National Airspace System. The FAA has determined there is no justification to ground the airplane. The airplane meets its original type certification basis as found in three type certification analyses (Special Certification Reviews conducted in 1984, 1997, and the Safety Evaluation of 2005 that found the airplane complies with the applicable certification rules).

3. Propose an SFAR and in addition, require an aircraft type rating for the MU-2B but remove requalification training. The FAA rejected this alternative because it would not meet the FAA's goal of ensuring that all MU-2 pilots receive continued training in the correct procedures for normal, abnormal, and emergency operations.

4. Propose an SFAR, and in addition, require a second pilot. Requiring a second pilot for all MU-2B series airplanes would be a more costly option than the proposed SFAR training and autopilot requirements (single-pilot IFR operations would be required to have a functioning autopilot). An operator has the option of running a two-pilot crew to enhance safety, but the FAA would not require it.

Conclusion

To protect the flying public, the FAA finds that many of the recommendations of the safety evaluation and the FSB report should be incorporated into an SFAR that applies to all operations of the Mitsubishi MU-2B series airplane conducted within the National Airspace System of the United States.

Paperwork Reduction Act

This proposal contains the following new information collection requirements.

Title: Mitsubishi MR-2 Series Airplane Special Training, Experience, and Operating Requirements

Summary: This SFAR would create new pilot training, experience, and operating requirements for the MU-2 airplane. Following an increased accident and incident rate in the MU-2B series airplane, the FAA conducted a safety evaluation of the MU-2B series airplane and found that changes in the training and operating requirements for that airplane are needed. These proposed regulations would mandate additional operating requirements and improve pilot training for the MU-2B series airplane.

Use of: This proposal would support the information needs of the FAA to determine that each pilot has received the appropriate training in the MU-2 airplane.

Respondents: The respondents to this proposed information requirement are pilots who receive the training required by this SFAR. The FAA estimates that there are about 600 MU-2 pilots in the United States.

Frequency: The FAA estimates each of these 600 pilots would complete the information required to verify training with a logbook and final phase check form endorsement by the flight instructor. Thus, the annual frequency of information requirements is 1200.

Annual Burden Estimate: Because these endorsements are expected to take only 5 minutes each, the total hour burden is 100 hours. (5 minutes x 600 pilots x 2 = 100 hours). The total costs, based on an instructor salary of \$50.00 per hour is \$8,606.

The agency is soliciting comments to--

(1) evaluate whether the proposed information requirement is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;

(2) evaluate the accuracy of the agency's estimate of the burden;

(3) enhance the quality, utility, and clarity of the information to be collected; and

(4) minimize the burden of the collection of information on those who are required to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

As required by the Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)), the FAA has submitted the information requirements associated with this proposal to the Office of Management and Budget for its review. Individuals and organizations may submit comments on the information collection requirement by *[Insert date 60 days after publication in the Federal Register]*, and should direct them to the address listed in the **ADDRESSES** section of this document. Comments also should be submitted to the Office of Information and Regulatory Affairs, OMB, New Executive Building, Room 10202, 725 17th Street, N.W., Washington, DC 20053, Attention: Desk Officer for FAA.

According to the 1995 amendments to the Paperwork Reduction Act (5 CFR 1320.8(b)(2)(vi)), an agency may not collect or sponsor the collection of information, nor may it impose an information collection requirement unless it displays a currently valid OMB control number. The OMB control number for this information collection will be published in the Federal Register, after the Office of Management and Budget approves it.

International Compatibility

In keeping with U.S. obligations under the Convention on International Civil Aviation, it is FAA policy to comply with International Civil Aviation Organization (ICAO) Standards and Recommended Practices to the maximum extent practicable. The FAA has determined there are no ICAO Standards and Recommended Practices that correspond to these proposed rules.

Regulatory Evaluation, Regulatory Flexibility Determination, International Trade Impact Assessment, and Unfunded Mandates Assessment

Changes to Federal regulations must undergo several economic analyses. First, Executive Order 12866 directs that each Federal agency shall propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 (Public Law 96-354) requires agencies to analyze the economic impact of regulatory changes on small entities. Third, the Trade Agreements Act (Public Law 96-39) prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the United States. In developing U.S. standards, this Trade Act requires agencies to consider international standards and, where appropriate, that they be the basis of U.S. standards. Fourth, the Unfunded Mandates Reform Act of 1995 (Public Law 104-4) requires agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local, or tribal governments, in the aggregate, or by the private sector, of \$100 million or more annually (adjusted for inflation with base year of 1995). This portion of the preamble summarizes the FAA's analysis of the economic impacts of this proposed rule. We suggest readers

seeking greater detail read the full initial regulatory evaluation, we have placed in the docket for this rulemaking (FAA-2006-24981).

In conducting these analyses, FAA has determined that this proposed rule: (1) has benefits that justify its costs, (2) is not an economically "significant regulatory action" as defined in section 3(f) of Executive Order 12866, (3) is not "significant" as defined in DOT's Regulatory Policies and Procedures; (4) would have a significant economic impact on a substantial number of small entities; (5) would not have a significant effect on international trade; and (6) would not impose an unfunded mandate on state, local, or tribal governments, or on the private sector by exceeding the threshold identified above. These analyses are summarized below.

Total Costs and Benefits of this Rule

The estimated cost of this proposed rule is about \$40.6 million (\$27.1 million in present value terms), and the estimated benefit is about \$85.4 million (\$55.4 million in present value terms). More detailed benefit and cost information is provided below. The FAA seeks comments on these estimates.

Who is Potentially Affected by this Rule

All pilots and operators of the Mitsubishi MU-2B series airplane are affected by this rulemaking. (This also includes flight instructors, designated pilot examiners, training center evaluators, and check airmen.)

Assumptions:

- Discount rate -- 7%. Sensitivity analysis was performed on 3% and 7%.
- Period of Analysis -- 2008 through 2017

- Compliance with the final rule will be required 180 days after the rule's effective date.

Benefits of this Rule

We estimate the proposed rule would provide benefits of \$85.4 million (or \$55.4 million in present value) from 2008 through 2017 in 2006 dollars. In the absence of a new rule, it is likely that future accidents will occur on MU-2B airplanes in a manner similar to what has happened in the past. A key benefit of the proposed rule would be the avoidance of these accidents.

Costs of this Rule

The FAA estimates the compliance costs of this proposed rule to be about \$40.6 million (or \$27.1 million in present value). The table below shows a breakdown of these total costs by category.

Total Costs

Category	Total
Pilot Training Costs	\$39,761,000
Aeronautical Experience	\$755,000
Instruction, Checking and Evaluating	\$0
Currency Requirements and Flight Review	\$0
Operating Requirements	\$64,000
Grand Total Costs (undiscounted)	\$40,580,000

Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (Public Law 96-354) (RFA) establishes “as a principle of regulatory issuance that agencies shall endeavor, consistent with the objectives of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the businesses, organizations, and governmental jurisdictions subject to regulation. To achieve this principle, agencies are required to solicit and consider flexible regulatory proposals and to explain the rationale for their actions to assure that such proposals are given serious consideration.” The RFA covers a wide-range of small entities, including small businesses, not-for-profit organizations, and small governmental jurisdictions.

Agencies must perform a review to determine whether a rule will have a significant economic impact on a substantial number of small entities. If the agency determines that it will, the agency must prepare a regulatory flexibility analysis as described in the RFA.

However, if an agency determines that a proposed or final rule is not expected to have a significant economic impact on a substantial number of small entities, section 605(b) of the 1980 RFA provides that the head of the agency may so certify and a regulatory flexibility analysis is not required. The certification must include a statement providing the factual basis for this determination, and the reasoning should be clear.

The FAA believes that this proposal would result in a significant economic impact on a substantial number of small entities. The purpose of this analysis is to provide the reasoning underlying the FAA determination.

Under Section 603(b) of the RFA, the analysis must address:

- Description of reasons the agency is considering the action
- Statement of the legal basis and objectives for the proposed rule
- Description of the record keeping and other compliance requirements of the proposed rule
- All federal rules that may duplicate, overlap, or conflict with the proposed rule
- Description and an estimated number of small entities to which the proposed rule will apply
- Analysis of small firms' ability to afford the proposed rule
- Analysis of disproportionate impact
- Analysis of competitive impact
- Estimation of the potential for business closures
- Description of the alternatives considered

Under Title 49 of the United States Code, the FAA Administrator is required to consider the following matters, among others, as being in the public interest:

- Assigning, maintaining, and enhancing safety and security as the highest priorities in air commerce. [See 49 U.S.C. §40101(d)(1).]
- Promoting the safe flight of civil aircraft in air commerce by prescribing regulations that are necessary for safety [See 49 U.S.C. §44701(a)(5).]
- Additionally, it is the FAA Administrator's statutory duty to carry out his or her responsibilities "in a way that best tends to reduce or eliminate the possibility or recurrence of accidents in air transportation." [See 49 U.S.C. §44701(c).]

Accordingly, this proposed rule would amend Title 14 of the Code of Federal Regulations to address the increasing number of accidents involving the Mitsubishi Heavy Industries America MU-2B series airplane. The proposed rule would require additional special training, aeronautical experience, and operating requirements for pilots that operate the Mitsubishi MU-2B.

We expect no more than minimal new reporting and record-keeping compliance requirements to result from this proposed rule.

B. OVERLAPPING, DUPLICATIVE, OR CONFLICTING FEDERAL RULES

We are unaware that the proposed rule will overlap, duplicate or conflict with existing Federal Rules.

C. ESTIMATED NUMBER OF SMALL FIRMS POTENTIALLY IMPACTED

Using the size standards from the Small Business Administration for Air Transportation and Aircraft Manufacturing, we have defined companies as small entities if they have fewer than 1,500 employees.

We considered the economic impact on small-business part 91, 121, and 135 operators. The MU-2B's operating in part 91 are not for hire or flown for profit. The part 91 operators primarily operate the MU-2B either as a personal-use airplane or companies operate them where aviation is not their primary business. We found no part 121 operators of the MU-2B airplane.

We then obtained a list of part 91 and 135 MU-2B operators¹ from the Flight Standards division of the FAA and from the FAA Aviation Safety Information Analysis and Sharing (ASIAS) Center (formerly known as the National Aviation Safety Data Analysis Center (NASDAC)).

Using information provided by the World Aviation Directory and ReferenceUSA, operators that are subsidiary businesses of larger businesses and businesses with more

¹ AFS-260; April 5, 2006 and "Review of Aviation Accidents and Incidents involving the Mitsubishi MU-2 Aircraft", October 2005; NASDAC

than 1,500 employees were eliminated from the list of small entities. For the remaining businesses, we obtained company revenue from those two sources. In many cases the data was not public.

We were unable to obtain employment or annual revenue data for the following MU-2B operators:

FAR Part	Operator Name	Number of MU-2s
91	Templeton Aircraft LLC	1
135	Bohlke International Airway, Inc.	1
135	Howell Enterprises, Inc.	1
135	Jetprop, Inc.	1
135	LRA Group, LLC	1
135	McNeely Charter Service, Inc.	1
135	Mid-Coast Air Charter, Inc.	1
135	Panther Aviation Inc.	2

The methodology discussed above resulted in the following list of 14 U.S. MU-2B operators, with less than 1,500 employees, who operate 61 airplanes.

Operator Name	Number of MU-2s
Air Flight Enterprises Inc.	2
Arrow Services	2
Professional Aviation Services	4
Royal Air Freight, Inc.	3
Anaconda Aviation Corp.	2
Aircraft Charter Services Inc.	2
Premier Jets Inc	1
Northeast Aviation, Inc.	1
Air 1ST Aviation Companies of Oklahoma, Inc.	9
Copper Station Holdings, LLC	1
Bankair Inc.	10
EPPS Air Service, Inc.	11
American Check Transport Inc.	11
Samaritan's Purse	2
Total	61

The FAA has determined that it is essential that all flight training be conducted per a single standardized training program that reflects piloting procedures as found in the Airplane Flight Manual (AFM). In order to accomplish this, the companies that train pilots would themselves have to train their current MU-2B instructors to this new standard. Based on our discussions with MU-2B pilot training centers we established that they would continue providing their MU-2B instructors with the latest training available. We believe that most MU-2B pilot training centers are small business entities according to the Small Business Administration for Air Transportation. We also believe the rule would result in offsetting training revenue for the MU-2B pilot training centers.

D. COST AND AFFORDABILITY FOR SMALL ENTITIES

To assess the cost impact to small business part 91 and 135 MU-2B operators, we estimated the pilot training costs and the number of pilots per operator that needed training. The training costs have a large and immediate impact on the operator. As noted in the cost section of this evaluation, the following table summarized the per pilot costs over the 10-year analysis period:

Training Costs per Pilot	Initial Cost	Requalification Cost	Annual Recurrent Cost	Total 10-Year Cost
Additional Costs for pilots who have been getting MU-2 training		\$12,604	\$1,937	\$30,036
Costs for pilots who have not been getting MU-2 training		\$12,604	\$9,889	\$101,603
Costs for Pilots with no MU-2 training	\$22,961		\$9,889	\$111,960
Note: Slight discrepancies in the addition of figures are due to rounding.				

Because insurance companies currently require all businesses to provide training for their MU-2B pilots, we determined the 14 US small entity companies identified above would incur an additional \$12,604 requalification cost and annual recurrent training costs of \$1,937 per pilot. We assumed every company would have two pilots for each MU-2B

they operate. We are also assuming that the final rule will become effective in two years.

On that basis, the present value of the pilot training cost for an MU-2B pilot would be about \$22,032, or an annual average training cost of \$2,203 (discounted at seven percent).

Year	2006\$ Cost	P.V. 7%	P.V. Cost	Average
1	\$12,604	0.8734	\$11,009	
2	\$1,937	0.8163	\$1,581	
3	\$1,937	0.7629	\$1,478	
4	\$1,937	0.7130	\$1,381	
5	\$1,937	0.6663	\$1,291	
6	\$1,937	0.6227	\$1,206	
7	\$1,937	0.5820	\$1,127	
8	\$1,937	0.5439	\$1,054	
9	\$1,937	0.5083	\$985	
10	\$1,937	0.4751	\$920	
	\$30,036		\$22,032	\$2,203.16

We estimated each operator's total compliance cost by multiplying the average annual discounted pilot training cost by the number of MU-2B pilots employed. We estimate the number of pilots by assuming each firm employs two pilots per MU-2B airplane. Next, we took this product and multiplied it by the number of MU-2B airplanes the small business operator currently has in their fleet. We then measured the economic impact on small entities by dividing the estimated average annual present value compliance cost for their fleet by the small entity's annual revenue. For this analysis, if the cost of compliance exceeds two percent of an operator's annual operating revenue, we determine that as a significant economic impact. As shown in the following table, the pilot training cost is estimated to be greater than two percent of annual revenues for three small entity operators.

FAR Part	Operator Name	Number of Employees	Number of MU-2s	Annual Revenue	Average Annual P.V. Cost Per Pilot	Number of Pilots per Operator	Cost of Proposed Rule	P.V. Cost As A % of Revenue
91	Professional Aviation Services	2	4	\$500,000	\$2,203	8	\$17,625	3.53%
135	Royal Air Freight, Inc.	3	3	\$500,000	\$2,203	6	\$13,219	2.64%
135	Air 1ST Aviation Companies of Oklahoma, Inc.	15	9	\$1,750,000	\$2,203	18	\$39,657	2.27%
135	Air Flight Enterprises Inc.	2	2	\$500,000	\$2,203	4	\$8,813	1.76%
91	Arrow Services	2	2	\$500,000	\$2,203	4	\$8,813	1.76%
135	Anaconda Aviation Corp.	3	2	\$750,000	\$2,203	4	\$8,813	1.18%
135	Aircraft Charter Services Inc.	3	2	\$750,000	\$2,203	4	\$8,813	1.18%
135	Premier Jets Inc	6	1	\$1,000,000	\$2,203	2	\$4,406	0.44%
135	Bankair Inc.	100	10	\$13,000,000	\$2,203	20	\$44,063	0.34%
135	EPPS Air Service, Inc.	150	11	\$15,000,000	\$2,203	22	\$48,470	0.32%
135	American Check Transport Inc.	160	11	\$15,500,000	\$2,203	22	\$48,470	0.31%
135	Northeast Aviation, Inc.	15	1	\$1,500,000	\$2,203	2	\$4,406	0.29%
135	Copper Station Holdings, LLC	7	1	\$7,500,000	\$2,203	2	\$4,406	0.06%
91	Samaritan's Purse	380	2	\$242,000,000	\$2,203	4	\$8,813	0.00%

Thus, the FAA determined that small entities would be significantly affected by the proposed rule.

E. BUSINESS CLOSURE ANALYSIS

have ratios in excess of two percent, and such a ratio may have a significant financial impact when this proposed rule becomes effective. The remaining operators have an average annual present-value cost to annual revenue ratio less than two percent. To fully assess whether this proposed rule would force a small entity into bankruptcy requires more financial information than is readily available.

We performed a cost of compliance analysis by dividing the economic impact costs by the average value of the fleet for each part 135 operator. We first conducted an Internet search for MU-2Bs on the market. From this search we obtained the selling price for 19 MU-2Bs currently on the market. Summing the 19 MU-2B's selling price, then dividing by 19, we computed the average selling price of \$510,250. In order to validate this average cost, we then computed a weighted average price by age and hours flown. These weighted average prices were both within 2.5% of the average selling price. The following table shows the results of the average selling price and the weighted average price:

Year	AGE	Aircraft	Registration	Hours	Selling Price	Weighted Average Price by Hour	Weighted Average Price by Age
1968	38	MU-2B-20	N54CK	9450	\$325,000	\$12,350,000	\$3,071,250,000
1969	37	MU-2B-20	N900TV	7100	\$355,000	\$13,135,000	\$2,520,500,000
1969	37	MU-2F	N22MZ	6600	\$425,000	\$15,725,000	\$2,805,000,000
1970	36	MU-2F	N140CM	7595	\$399,000	\$14,364,000	\$3,030,405,000
1972	34	MU-2	N107SB	8812	\$325,000	\$11,050,000	\$2,863,900,000
1972	34	MU-2J	N776CC	7477	\$519,000	\$17,646,000	\$3,880,563,000
1974	32	MU-2B-25	N666SP	6330	\$795,000	\$25,440,000	\$5,032,350,000
1974	32	MU-2B-35	N375CA	8543	\$399,000	\$12,768,000	\$3,408,657,000
1974	32	MU-2B-35	N621TA	5025	\$475,000	\$15,200,000	\$2,386,875,000
1974	32	MU-2K	N460FS	6533	\$519,000	\$16,608,000	\$3,390,627,000
1974	32	MU-2B-25	N50K	5380	\$750,000	\$24,000,000	\$4,035,000,000
1975	31	MU-2L	N59KS	6898	\$575,000	\$17,825,000	\$3,966,350,000
1977	29	MU-2N	N857MA	3255	\$475,000	\$13,775,000	\$1,546,125,000
1977	29	MU-2P	N140CP	4300	\$479,000	\$13,891,000	\$2,059,700,000
1978	28	MU-2K	n/a	4500	\$450,000	\$12,600,000	\$2,025,000,000
1978	28	MU-2P	n/a	2668	\$475,000	\$13,300,000	\$1,267,300,000
1979	27	MU-2B-60	N175CA	7565	\$595,000	\$16,065,000	\$4,501,175,000
1980	26	MU-2B-40	N575CA	3690	\$895,000	\$23,270,000	\$3,302,550,000
1981	25	MU-2B-60	N3MA	6525	\$975,000	\$24,375,000	\$6,361,875,000
Average	30				\$510,250	\$523,184	\$519,723

We calculated the economic impact costs by dividing the product of the average annual present value cost per pilot by the number of pilots by the product of the average selling price by the number of MU-2Bs the small-entity operates. As shown in the following table, the pilot training costs of the small entities is estimated to be 0.86 percent of the average selling price of the small entities fleet.

Operator Name	Number of MU-2s	Average Selling Price	Average Annual P.V. Cost Per Pilot	Number of Pilots	P.V. Cost As A % of MU-2 value
Premier Jets Inc	1	\$510,250	\$2,203	2	0.86%
Northeast Aviation, Inc.	1	\$510,250	\$2,203	2	0.86%
Copper Station Holdings, LLC	1	\$510,250	\$2,203	2	0.86%
Air Flight Enterprises Inc.	2	\$510,250	\$2,203	4	0.86%
Arrow Services	2	\$510,250	\$2,203	4	0.86%
Anaconda Aviation Corp.	2	\$510,250	\$2,203	4	0.86%
Aircraft Charter Services Inc.	2	\$510,250	\$2,203	4	0.86%
Samaritan's Purse	2	\$510,250	\$2,203	4	0.86%
Royal Air Freight, Inc.	3	\$510,250	\$2,203	6	0.86%
Professional Aviation Services	4	\$510,250	\$2,203	8	0.86%
Air 1ST Aviation Companies of Oklahoma, Inc.	9	\$510,250	\$2,203	18	0.86%
Bankair Inc.	10	\$510,250	\$2,203	20	0.86%
EPPS Air Service, Inc.	11	\$510,250	\$2,203	22	0.86%
American Check Transport Inc.	11	\$510,250	\$2,203	22	0.86%

We do not believe that these additional compliance costs, relative to the value of the asset, would cause any of the impacted firms to go into bankruptcy, but seek comment, with supportive justification, to determine the degree of hardship the proposed rule will have on these businesses.

F. COMPETITIVE ANALYSIS

In order to determine the competitive impact of the rule on small entities, we looked at the type of market for each of the affected small entity's business. The following table details these results.

Line of Business	Number of Companies
Aerial Photographer	1
Air Ambulance Service	1
Air Cargo Services	1
Air Courier Service	2
Aircraft Charter and Rental	2
Aircraft Dealers	1
Charity	1
FAA repair station	1
Holding Company	1
MU-2 Sales and Service	1
Real Estate Inspection	1
Services NEC	1

Since markets of the 14 small entities cover 12 distinctly different areas, we believe the diversity of the companies' business lines would not create a competitive disadvantage. From the Business Closure Analysis above, we do not believe this proposal will cause any of the impacted small entity firms who operate MU-2B's to go into bankruptcy. We invite public comment on the potential competitive impact of the proposed rule.

G. DISPROPORTIONALITY ANALYSIS

Given the sparse firm and market data publicly available, we cannot discern the small firm competitive impact relative to large firms from this proposed rule.

We invite public comment on the disproportional potential impact of the proposed rule on small entities versus large entities. Affected small entities are invited to discuss:

(a) The size of their business and how the proposed regulations would result in a significant economic burden upon them as compared to larger organizations in the same business community; and

(b) How the proposed regulations could be modified to take into account small entities' differing needs or capabilities versus large entities.

Comments received on regulatory flexibility issues are addressed in the statement of considerations for the final rule.

H. ANALYSIS OF ALTERNATIVES

Alternative One

The "baseline," "do nothing," or *status quo* alternative has no compliance costs but would not accomplish the intent of Congress' recommendation. The FAA rejected this "do nothing" alternative because the proposed rule would enhance safety and prevent more MU-2B related accidents.

Alternative Two

This alternative would prohibit all operations of the MU-2B series airplane within the National Airspace System. The FAA has determined that there is little justification to ground the airplane. The airplane meets its original type certification basis as found in three type certification analyses (Special Certification Reviews conducted in 1984, 1997,

and the Safety Evaluation of 2005 that found that the airplane complies with the applicable certification regulations).

Alternative Three

This alternative would keep the proposed SFAR, except that it would require an aircraft type rating for the MU-2B, but remove requalification training. This alternative would not meet the FAA's goal of ensuring that all MU-2B pilots receive training in the correct procedures for abnormal and emergency operations.

Alternative Four

This alternative would keep the proposed SFAR, and in addition, require a second pilot. Requiring a second pilot for all MU-2B airplanes would be a substantially more costly option than the proposed SFAR training and autopilot requirements (single-pilot IFR operations would be required to have a functioning autopilot). In addition, the FAA has determined that use of an autopilot provides a level of safety comparable to a two-pilot crew and therefore does not propose requiring a second crew member. The FAA invites comment on whether there are advantages to requiring two crew members that exceed the safety benefits of requiring an autopilot. An operator has the option of running a two-pilot crew to enhance safety, but the FAA would not require it.

In summary, the FAA believes that this proposal would have a significant impact on a substantial number of small entities. We were able to obtain employment and annual revenue data for 14 small entities that operated MU-2B airplanes. The pilot training cost is estimated to be greater than two percent of annual revenues for three of these small entities. Therefore, the FAA certifies that this rule would have a significant economic impact on a substantial number of small entities.

International Trade Impact Assessment

The Trade Agreements Act of 1979 (Public Law 96-39) prohibits Federal agencies from establishing any standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. Legitimate domestic objectives, such as safety, are not considered unnecessary obstacles. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards. The FAA has assessed the potential effect of this proposed rule and determined that it responds to a domestic safety objective and is not considered an unnecessary barrier to trade.

Unfunded Mandates Assessment

Title II of the Unfunded Mandates Reform Act of 1995 (Public Law 104-4) requires each Federal agency to prepare a written statement assessing the effects of any Federal mandate in a proposed or final agency rule that may result in an expenditure of \$100 million or more (adjusted annually for inflation with the base year 1995) in any one year by State, local, and tribal governments, in the aggregate, or by the private sector; such a mandate is deemed to be a "significant regulatory action." The FAA currently uses an inflation-adjusted value of \$128.1 million in lieu of \$100 million.

This proposed rule does not contain such a mandate. The requirements of Title II do not apply.

Executive Order 13132, Federalism

The FAA has analyzed this proposed rule under the principles and criteria of Executive Order 13132, Federalism. We determined that this action would not have a

substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government, and therefore would not have federalism implications.

Regulations Affecting Intrastate Aviation in Alaska

Section 1205 of the FAA Reauthorization Act of 1996 (110 Stat. 3213) requires the Administrator, when changing regulations in title 14 of the CFR in manner affecting intrastate aviation in Alaska, to consider the extent to which Alaska is not served by transportation modes other than aviation, and to establish such regulatory distinctions as he or she considers appropriate. The FAA therefore specifically requests comments on whether there is justification for applying the proposed rule differently in intrastate operations in Alaska.

Environmental Analysis

FAA Order 1050.1E identifies FAA actions that are categorically excluded from preparation of an environmental assessment or environmental impact statement under the National Environmental Policy Act in the absence of extraordinary circumstances. The FAA has determined this proposed rulemaking action qualifies for the categorical exclusion identified in paragraph 312f and involves no extraordinary circumstances.

Regulations that Significantly Affect Energy Supply, Distribution, or Use

The FAA has analyzed this NPRM under Executive Order 13211, Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use (May 18, 2001). We have determined that it is not a “significant energy action” under the executive order because it is not a “significant regulatory action” under Executive Order

12866, and it is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

List of Subjects

14 CFR Part 61

Aircraft, Airmen, Aviation Safety, Incorporation by reference, Reporting and recordkeeping requirements, Safety measures.

14 CFR Part 91

Aircraft, Airmen, Airports, Aviation safety, Freight, Incorporation by reference, Reporting and recordkeeping requirements.

14 CFR Part 135

Air taxis, Aircraft, Airmen, Aviation safety, Incorporation by reference, Reporting and recordkeeping requirements.

The Proposed Amendment

In consideration of the foregoing, the Federal Aviation Administration proposes to amend chapter I of title 14, Code of Federal Regulations, as follows:

PART 61--CERTIFICATION: PILOTS, FLIGHT INSTRUCTORS, AND GROUND INSTRUCTORS

1. The authority citation for part 61 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701–44703, 44707, 44709–44711, 45102–45103, 45301–45302.

2. Add Special Federal Aviation Regulation (SFAR) No. XX as follows:

Special Federal Aviation Regulations

* * * * *

SFAR No. XX -- Mitsubishi MU-2B Series Airplane Special Training, Experience, and Operating Requirements

NOTE: For the text of SFAR No. XX, see part 91 of this chapter.

PART 91—GENERAL OPERATING AND FLIGHT RULES

3. The authority citation for part 91 continues to read as follows:

Authority: 49 U.S.C. 106(g), 1155, 40103, 40113, 40120, 44101, 44111, 44701, 44709, 44711, 44712, 44715, 44716, 44717, 44722, 46306, 46315, 46316, 46504, 46506–46507, 47122, 47508, 47528–47531, articles 12 and 29 of the Convention on International Civil Aviation (61 stat. 1180).

4. Add SFAR No. XX to read as follows:

Special Federal Aviation Regulation (SFAR) No. XX--Mitsubishi MU-2B Series Special Training, Experience, and Operating Requirements.

1. *Applicability.* This Special Federal Aviation Regulation (SFAR) applies to all persons who operate the MU-2B airplane including those who manipulate the controls, or act as pilot-in-command. The proposed SFAR also applies to those persons who provide pilot training for the Mitsubishi MU-2B series airplane. The requirements in this SFAR are in addition to the requirements of 14 CFR parts 61, 91, and 135.

2. *Compliance.* After [*Insert date 180 days after the effective date of the final rule in the Federal Register*], no person may manipulate the controls, act as pilot-in-command, or provide pilot training for the Mitsubishi MU-2B series airplane unless that person meets the requirements of sections 3, 4, 5, 6, and 7, as applicable of this SFAR.

3. *Required Pilot Training.*

(a) No person may manipulate the controls or act as pilot-in-command of a Mitsubishi MU-2B series airplane for the purpose of flight unless the applicable requirements for ground and flight training on initial/transition, requalification, recurrent, or differences have been completed, as specified in Mitsubishi Heavy Industries MU-2B Training Program, Part Number YET 05301, dated July 27, 2006, Revision 1 or a FAA-approved revision issued after the effective date of this SFAR. On completion of the training, that person's logbook must be endorsed by a certificated flight instructor meeting the qualifications of section 5 of this SFAR.

(b) No person may manipulate the controls or act as pilot-in-command of a Mitsubishi MU-2B series airplane for the purpose of flight unless that person completes annual recurrent pilot training on the *Special Emphasis Items*, pages 4 and 5, and all items listed in the *Training Course Final Phase Check*, Appendix A, as specified in Mitsubishi Heavy Industries MU-2B Training Program, Part Number YET 05301, dated July 27, 2006, Revision 1 or a FAA-approved revision issued after the effective date of this SFAR. That person must satisfactorily complete the annual training and that person's logbook must be endorsed by a certificated flight instructor meeting the qualifications of section 5 of this SFAR. Satisfactory completion of the competency check required by 14 CFR 135.293 of that chapter within the preceding 12 calendar months may not be substituted for the Mitsubishi MU-2B series airplane annual recurrent flight training of this paragraph.

4. *Aeronautical Experience.* No person may act as pilot-in-command of a Mitsubishi MU-2B series airplane for the purpose of flight unless that person holds an airplane

category and multi-engine land class rating, and has logged a minimum of 100 flight hours of pilot-in-command time in multi-engine airplanes.

5. *Instruction, Checking and Evaluation.*

(a) *Flight Instructor (Airplane).* No flight instructor may provide instruction or conduct a flight review in a Mitsubishi MU-2B series airplane unless that instructor meets the requirements of this section.

(i) Each flight instructor who provides flight training in the Mitsubishi MU-2B series airplane must meet the pilot training requirements of paragraphs (a) and (b) of section 3 of this SFAR before giving flight instruction in the Mitsubishi MU-2B series airplane.

(ii) Each flight instructor who provides flight training in the Mitsubishi MU-2B series airplane must meet the currency requirements of paragraphs (a) and (c) of section 6 of this SFAR before giving flight instruction in the Mitsubishi MU-2B series airplane.

(iii) Each flight instructor who provides flight training in the Mitsubishi MU-2B series airplane must have –

- (A) a minimum total pilot time of 2,000 pilot-in-command hours,
- (B) 800 pilot-in-command hours in multiengine airplanes, and
- (C) 300 pilot-in-command hours in the Mitsubishi MU-2B series airplane, 50 of which must have been within the last 12 months.

(b) *Flight Instructor (Simulator/ Flight Training Device).* No flight instructor may provide instruction for the Mitsubishi MU-2B series airplane unless that instructor meets the requirements of this section.

(i) Each flight instructor who provides flight training for the Mitsubishi MU-2B series airplane must meet the pilot training and documentation requirements of paragraphs (a) and (b) of section 3 of this SFAR before giving flight instruction for the Mitsubishi MU-2B series airplane.

(ii) Each flight instructor who provides flight training for the Mitsubishi MU-2B series airplane must meet the currency requirements of paragraph (c) of section 6 of this SFAR before giving flight instruction for the Mitsubishi MU-2B series airplane.

(iii) Each flight instructor who provides flight training for the Mitsubishi MU-2B series airplane must have-

- (A) a minimum total pilot time of 2000 pilot-in-command hours,
- (B) 800 pilot-in-command hours in multiengine airplanes, and
- (C) within the last 12 months, either 50 hours of Mitsubishi MU-2B series airplane pilot-in-command experience or 50 hours providing simulator or flight training device instruction for the Mitsubishi MU-2B.

(c) *Checking and Evaluation.* No person may provide checking or evaluation for the Mitsubishi MU-2B series airplane unless that person meets the requirements of this paragraph.

(i) For the purpose of checking, designated pilot examiners, training center evaluators, and check airmen must have completed the appropriate training in the Mitsubishi MU-2B series airplane in accordance with paragraph (a) and (b), section 3 of this SFAR.

(ii) For checking conducted in the Mitsubishi MU-2B series airplane, each designated pilot examiner and check airman must have 100 hours pilot-in-command

flight time in the Mitsubishi MU-2B series airplane and maintain currency in accordance with section 6 of this SFAR.

(d) *Mandatory Training Procedures.*

(i) All pilot training conducted for the Mitsubishi MU-2B series airplane must be completed in accordance with the procedures and techniques as described in the Mitsubishi Heavy Industries MU-2B Training Program, Part Number YET 05301, dated July 27, 2006, Revision 1 or a FAA-approved revision issued after the effective date of this SFAR.

(ii) All flight training conducted for the Mitsubishi MU-2B series airplane must be completed using a Mitsubishi Heavy Industries MU-2B checklist accepted by the MU-2B Flight Standardization Board, or other MU-2B series airplane checklist that has been accepted by the MU-2B Flight Standardization Board, and described in paragraph (c), section 7 of this SFAR.

6. *Currency Requirements and Flight Review.*

(a) The landing currency requirements of § 61.57 of this chapter must be maintained in the Mitsubishi MU-2B series airplane. Landings in other multiengine airplanes do not meet the landing currency requirements for the Mitsubishi MU-2B series airplane. Landings in either short- or long-body Mitsubishi MU-2B model airplane may be credited toward landing currency in both MU-2B model groups.

(b) Instrument experience obtained in other category and class of aircraft may be used to satisfy the instrument currency requirements of § 61.57 of this chapter for the Mitsubishi MU-2B series airplane.

(c) Satisfactory completion of a flight review to satisfy the requirements of

§ 61.56 of this chapter is valid for operation of a Mitsubishi MU-2B series airplane only if that flight review is conducted in a Mitsubishi MU-2B series airplane. The flight review for Mitsubishi MU-2B series airplanes must include the *Special Emphasis Items*, pages 4 and 5, and all items listed in *Training Course Final Phase Check*, Appendix A, of Mitsubishi Heavy Industries MU-2B Training Program, Part Number YET 05301, dated July 27, 2006, Revision 1 or a FAA-approved revision issued after the effective date of this SFAR.

7. Operating Requirements.

(a) No person may operate a Mitsubishi MU-2B series airplane with a single pilot under instrument flight rules (IFR), in IFR conditions, or night visual flight rule (VFR) conditions, unless that airplane has a functioning autopilot.

(b) No person may operate a Mitsubishi MU-2B series airplane unless a copy of the appropriate Mitsubishi Heavy Industries Airplane Flight Manual, as described in Table 1 of this SFAR, or a FAA-approved revision issued after the effective date of this SFAR, is carried on board the airplane and is accessible during each flight at the pilot station of the airplane.

(c) No person may operate a Mitsubishi MU-2B series airplane unless a copy of a Mitsubishi Heavy Industries MU-2B checklist accepted by the MU-2B Flight Standardization Board, or other MU-2B series airplane checklist that has been accepted by the MU-2B Flight Standardization Board, is carried on board the airplane and used by the flight crewmembers when operating the airplane.

(d) No person may operate a Mitsubishi MU-2B series airplane contrary to the procedures and techniques within Mitsubishi Heavy Industries MU-2B Training Program,

Program, Part number YET 05301, dated July 27, 2006, Revision 1, and the Mitsubishi Heavy Industries Airplane Flight Manuals, as described in Table 1 of this SFAR are incorporated by reference. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. Section 552(a) and 1 CFR part 51. The Mitsubishi Heavy Industries MU-2B Training Program and Airplane Flight Manuals are distributed by Turbine Aircraft Services, Inc. Copies may be obtained from Turbine Aircraft Services Inc., 4550 Jimmy Doolittle Drive, Addison, Texas 75001, USA. Copies may be inspected at U.S. Department of Transportation, Docket Management Facility, Room PL-401, 400 Seventh Street, S.W., Washington, DC 20590-0001 or at the Office of the Federal Register, 800 North Capitol Street, N.W., suite 700, Washington, DC.

9. *Expiration.* This SFAR will remain in effect until further notice.

Table 1.
Document Number and Revision Level
For MU-2B Series Airplane- Airplane Flight Manual

Model	Type Certificate	Applicable AFM Revision Level		
		Document No.	Revision No.	Date Issued
MU-2B-60	A10SW	MR-0273-1	14	July 11, 2005
MU-2B-40	A10SW	MR-0271-1	12	July 11, 2005
MU-2B-36A	A10SW	MR-0196-1	14	July 11, 2005
MU-2B-36	A2PC	YET74122A	12	August 9, 2004
MU-2B-35	A2PC	YET70186A	13	August 9, 2004
MU-2B-30	A2PC	YET69013A	13	August 9, 2004
MU-2B-26A	A10SW	MR-0194-1	12	July 11, 2005
MU-2B-26	A2PC	YET74129A	12	August 9, 2004
MU-2B-26	A10SW	MR-0160-1	10	July 11, 2005
MU-2B-25	A10SW	MR-0156-1	10	July 11, 2005
MU-2B-25	A2PC	YET71367A	12	August 9, 2004
MU-2B-20	A2PC	YET68034A	12	August 9, 2004
MU-2B-15	A2PC	YET68038A	12	August 9, 2004
MU-2B-10	A2PC	YET86400	12	August 9, 2004
MU-2B	A2PC	YET67026A	12	August 9, 2004

**DEMAND OPERATIONS AND RULES GOVERNING PERSONS ON BOARD
SUCH AIRCRAFT.**

5. The authority citation for part 135 continues to read as follows:

Authority: 49 U.S.C. 106(g), 41706, 44113, 44701–44702, 44705, 44709,
44711–44713, 44715–44717, 44722.

6. Add Special Federal Aviation Regulation (SFAR) No. XX as follows:

Special Federal Aviation Regulations

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**SFAR No. XX -- Mitsubishi MU-2B Series Airplane Special Training,
Experience, and Operating Requirements**

NOTE: For the text of SFAR No. XX, see part 91 of this chapter.

Issued in Washington, DC, on September 21, 2006.


James J. Ballough
Director, Flight Standards Service, AFS-1

Certified to be a True Copy


